

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

TD224
W2W37



United States
Department of
Agriculture

Soil
Conservation
Service

Spokane,
Washington



5

Washington Water Supply Outlook

FEBRUARY 1, 1987

LEO 127



Foreword

How Forecasts Are Made

Most of the annual streamflow in the Western United States originates as snowfall. This snowfall accumulates high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are viewed in conjunction with snowpack data to prepare runoff forecasts. This report presents a comprehensive picture of water supply outlook conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data and narratives describing current conditions.

Streamflow forecasts are cooperatively generated by Soil Conservation Service and National Weather Service hydrologists. Forecasts become more accurate as more data affecting runoff becomes known. For this reason, forecasts are issued that reflect three future precipitation conditions — Below Normal, Average, and Above Normal. These forecasts are termed reasonable minimum, most probable, and reasonable maximum. Actual streamflow can be expected to fall between the lower and upper forecast values eight out of ten years.

Snowpack data are obtained by using a combination of manual and automated measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation, temperature, and other parameters are monitored on a daily basis and transmitted via radio telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

For More Information

Copies of Monthly Water Supply Outlook Reports and other reports may be obtained from the states listed below. Because of the limited space, snow survey measurements are not published in monthly reports. An annual snow survey data summary is published by the Soil Conservation Service for each of the western states. Historical snow survey data may be obtained at those same offices.

STATE	ADDRESS
Alaska	201 East 9th Ave., Suite 300, Anchorage, AK 99501-3687
Arizona	201 East Indianola, Suite 200, Phoenix, AZ 85012
Colorado	2490 West 26th Ave., Denver, CO 80211
New Mexico	517 Gold Ave. S.W., Room 3301, Albuquerque, NM 97102
Idaho	304 North 8th Street, Room 345, Boise, ID 83702
Montana	10 East Babcock, Room 443, Federal Building, Bozeman, MT 59715
Nevada	1201 Terminal Way, Room 219, Reno, NV 89502
Oregon	1220 Southwest 3rd Ave., Room 1640, Portland, OR 97208
Utah	4402 Federal Building, 125 South State Street, Salt Lake City, UT 84147
Washington	360 U.S. Court House, Spokane, WA 99201
Wyoming	Federal Building, 100 East "B" Street, Casper, WY 82601

In addition to state reports, a Water Supply Outlook for the Western United States is published by the Soil Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the Soil Conservation Service, West National Technical Center, 511 Northwest Broadway, Room 547, Portland, OR 97209.

Published by other agencies:

Water Supply Outlook Reports prepared by other agencies include: California — Snow Survey Branch, California Department of Water Resources, P.O. Box 388, Sacramento, CA 95802; British Columbia — The Ministry of Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia, V8V 1X5; Yukon Territory — Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory, Y1A 3V1; Alberta, Environment Technical Services Division, 9820 106th St., Edmonton, Alberta T5K 2J6.

Washington Water Supply Outlook

and

Federal — State — Private Cooperative Snow Surveys

Issued by

Wilson Scaling
Chief
Soil Conservation Service
Washington, D.C.

Released by

Lynn A. Brown
State Conservationist
Soil Conservation Service
Spokane, Washington

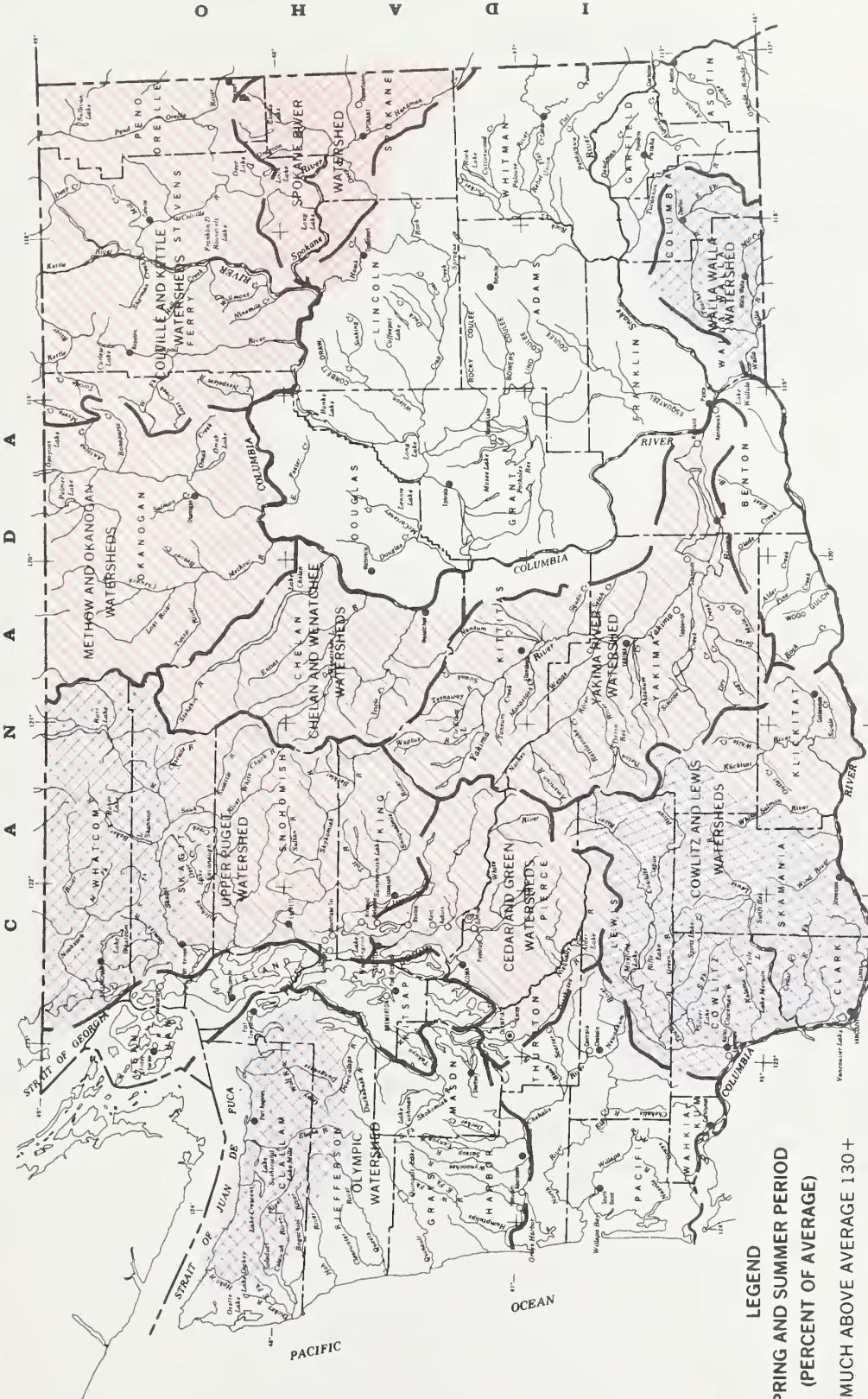
Prepared by

William F. Weller
Water Supply Specialist
Room 360 U.S. Courthouse
Spokane, Washington 99201

All programs and services of the USDA
are available to everyone without regard
to race, creed, color, sex, age, handicap
or national origin.

TABLE OF CONTENTS

STATE STREAMFLOW PROSPECTS MAP	1
STATE GENERAL OUTLOOK	2
BASIN OUTLOOK AND CONDITIONS	
SPOKANE	4
COLVILLE AND PEND OREILLE	6
OKANOGAN AND METHOW	8
WENATCHEE AND CHELAN	10
YAKIMA	12
WALLA WALLA	14
COWLITZ AND LEWIS	16
WHITE - GREEN	18
NORTH PUGET SOUND	20
OLYMPIC	22
SNOW DATA	24
ADDITIONAL INFORMATION	26



STREAMFLOW PROSPECTS

WASHINGTON

February 1, 1987

0 25 50 75 100 MI
0 50 100 150 KM

SOURCE: Data compiled by SCS
Field Personnel

JANUARY 1986 4.R.39641
BASE 4.R.39620

GENERAL OUTLOOK

SUMMARY:

February Washington water supply forecasts indicate below normal runoff for 1987, but Western Washington and the east side of the Cascade mountains show improvements from January. Snow cover and precipitation continue to be below average. Reservoir storage is below normal at the major irrigation projects throughout the state. January streamflows were below average. Note: The Colville snow cover graph has been corrected for the January reading.

SNOWPACK:

Febrary snow pack is low with a state wide average of 85%. Eastern Washington is the lowest with the Spokane Basin coming in at 69% of normal. The eastern slopes of the Cascade mountains are a little better with the Wenatchee Basin at 87%, the Chelan Basin at 80% and the Yakima Basin at 90% of average. The west side of the state also showed improvement over the January 1 snow measurements with the Cowlitz at 97% and the Skagit at 90% of normal.

PRECIPITATION:

January precipitation values from SNOTEL sites indicate a water year value near 82% of average for the high mountain areas. Precipitation data from the National Weather Service sites show January with much below average in the Spokane Basin at 51% and the Pend Oreille Basin 61%. The west side basins fared much better for January with the Cowlitz at 104% and the Olympic Peninsula at 105% of normal. Water year to date precipitation is below average over the entire state and varies from 99% for the Walla Walla Basin to 55% for the Colville.

RESERVOIRS:

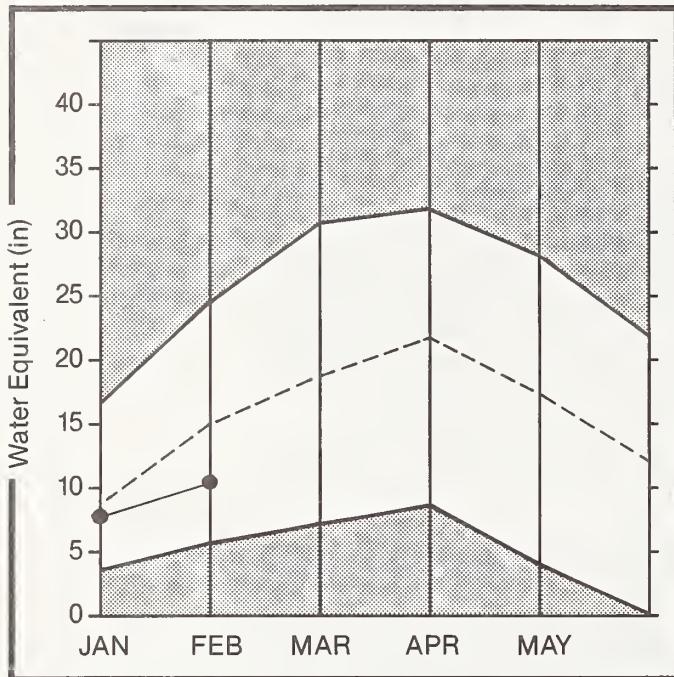
Major irrigation reservoir storage remains below average in Washington for January. The Yakima Basin which relies heavily upon stored water for irrigation is at 62% of average, with storage as of February 1 at 355,000 acre feet. Columbia River reservoirs are near normal with Roosevelt at 126% of normal. Storage in the Okanogan area improved to 99% of capacity for the Conconully Reservoirs. The power reservoirs such as Coeur d' Alene at 40%, Chelan Lake at 58% and Ross Lake at 93% of average are suffering from low flows of last fall and winter.

STREAMFLOW:

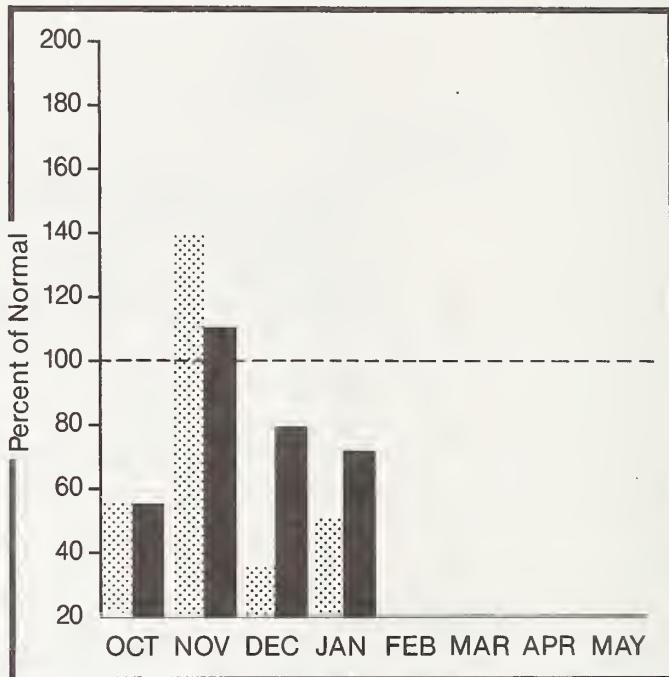
Improved outlook for streamflows are forecasted for the western portion of Washington State. Although still below normal over the entire state the forecasts are better than the January 1. Forecasts vary from 60% in the Spokane River to 100% in the Lewis River. January streamflows continued the summer and fall trend of below normal with only the Kettle River at 109% being above average (may be affected by ice). Other January streamflows are; Spokane at Long Lake 67% (not corrected for upstream storage), Pend Oreille River 55%, Columbia River at the International Boundary 77%, Chelan 65%, Skagit 63%, and the Chehalis River 67%. Flooding occurred along some of the coastal streams near the end of January, as rain storms and a high tide made rivers rise.

SPOKANE

Mountain snowpack* (inches)



Precipitation* (percent of normal)



*Based on selected stations

*Based on selected stations

Maximum [Shaded Box] Average [Dashed Line]
Minimum [Solid Box] Current [Solid Line with Dots]

Monthly precipitation [Hatched Box] Year to date precipitation [Solid Box]

SPOKANE RIVER BASIN

WATER SUPPLY OUTLOOK:

January streamflow on the Spokane River continued to be below average at 76% at Long Lake, uncorrected for change of storage in Coeur d' Alene Lake. Forecasted spring and summer runoff is 60% of normal. This forecast is based upon a snowpack that is 70% of average and a water year to date precipitation value of 71% of normal. Data for snow cover was obtained from 15 SNOTEL and manual snow courses. Storage in Coeur d' Alene Lake was 88,200 acre feet compared to 125,400 last year; average storage in Cd'A for February 1 is 220,900 acre feet. Temperatures for Spokane for January were 1 degree above normal.

For more information contact your local Soil Conservation Service office.

SPOKANE RIVER BASIN

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	25 YR, AVG. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	REAS. MAX. (1000AF)	REAS. MAX. (% AVG.)	REAS. MIN. (1000AF)	REAS. MIN. (% AVG.)
SPOKANE at Post Falls	APR-SEP	2848.0	1720.0	60	3201.0	112	239.0	8
	APR-JUL	2754.0	1660.0	60	3092.0	112	228.0	8

RESERVOIR STORAGE (1000AF) | WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **		WATERSHED	NO. COURSES	THIS YEAR AS % OF
	THIS YEAR	LAST YEAR	Avg.	Avg'D	Last Yr.	Average
COEUR D'ALENE	291.2	88.2	125.4	220.9	Spokane River	15 98 69

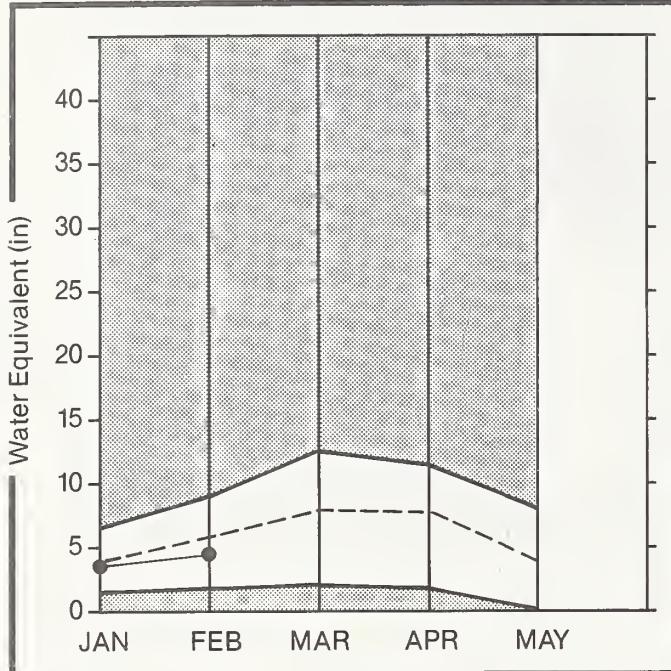
1 - Reas. max. and reas. min. forecasts are for 5% and 95% exceedance levels and also (2) below.

2 - Corrected for upstream diversions or changes in reservoir storage.

The average is computed for the 1961-85 base period.

COLVILLE AND PEND OREILLE

Mountain snowpack* (inches)

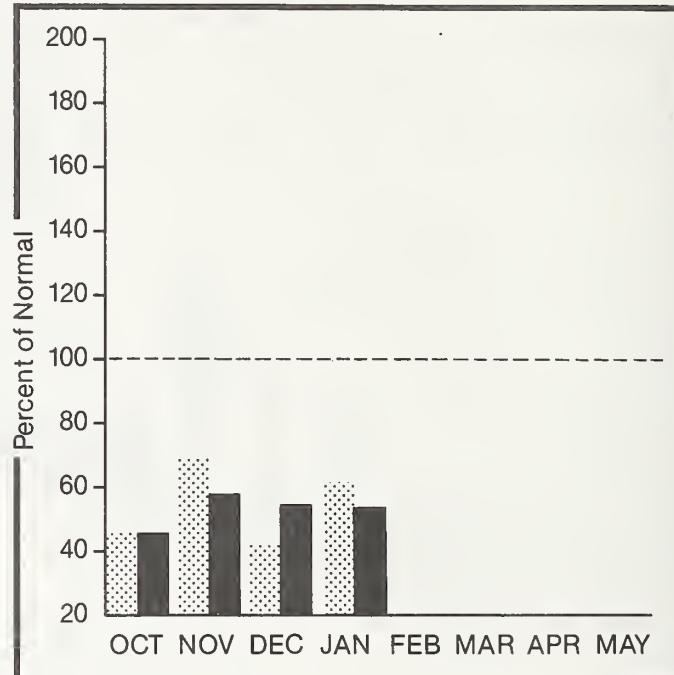


*Based on selected stations

Maximum Average

Minimum Current

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation Year to date precipitation

COLVILLE - PEND OREILLE RIVER BASINS

WATER SUPPLY OUTLOOK:

Streamflows for January were 75% of average on the Pend Oreille River, 109% on the Kettle River and 77% on the Columbia River at the International Boundary. Streamflows for the Pend Oreille River is forecasted to be 75%, Kettle River 80% and the Colville River 81% of normal for the spring and summer runoff period. Snowpack measurements in the Pend Oreille Basin are at 73% of normal based on nine snow course measurements. Basin-wide the snow cover is at 76% of average and 80% of last year. Precipitation during January was 61% of average bringing the water year to date to 55% of normal.

For more information contact your local Soil Conservation Service office.

COLVILLE - PEND OREILLE RIVER BASINS

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	25 YR. AVG.	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	REAS. MAX. (1000AF)	REAS. MAX. (% AVG.)	REAS. MIN. (1000AF)	REAS. MIN. (% AVG.)
PEND OREILLE RIVER b1 Box Canyon	APR-SEP	15425.0	11500.0	75	15200.0	99	7800.0	51
	APR-JUL	14156.0	10600.0	75	14000.0	99	7200.0	51
	APR-JUN	12227.0	9170.0	75	12100.0	99	6240.0	51
COLVILLE RIVER at Kettle Falls	APR-SEP	134.0	108.0	81	175.0	131	41.0	31
	APR-JUL	123.0	99.0	80	161.0	131	38.0	31
	APR-JUN	114.0	92.0	81	149.0	131	35.0	31
KETTLE RIVER nr Laurier	APR-SEP	1829.0	1460.0	80	2521.0	138	399.0	22
	APR-JUL	1738.0	1380.0	79	2390.0	138	370.0	21
	APR-JUN	1581.0	1270.0	80	2190.0	139	355.0	22
COLUMBIA RIVER at Birchbank 2	APR-SEP	44605.0	39200.0	88	46800.0	105	31600.0	71
	APR-JUL	35705.0	31400.0	88	37500.0	105	25300.0	71
	APR-JUN	26027.0	22900.0	88	27300.0	105	18500.0	71
COLUMBIA RIVER at Grand Coulee 2	APR-SEP	66841.0	54700.0	82	67400.0	101	42000.0	63
	APR-JUL	56169.0	46100.0	82	56800.0	101	35400.0	63
	APR-JUN	44036.0	36100.0	82	44500.0	101	27700.0	63

RESERVOIR STORAGE (1000AF) | WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF	
		THIS YEAR	LAST YEAR	AVG.			Avg'D	Last Yr.
ROOSEVELT	5232.0	4712.5	5014.1	3749.0	Colville River	1	71	73
BANKS	715.0	658.7	391.0	599.0	Pend Oreille River	9	101	73
					Kettle River	7	84	76
					Omac Lake, Twin Lakes	0	0	0
					Newman Lake	0	0	0

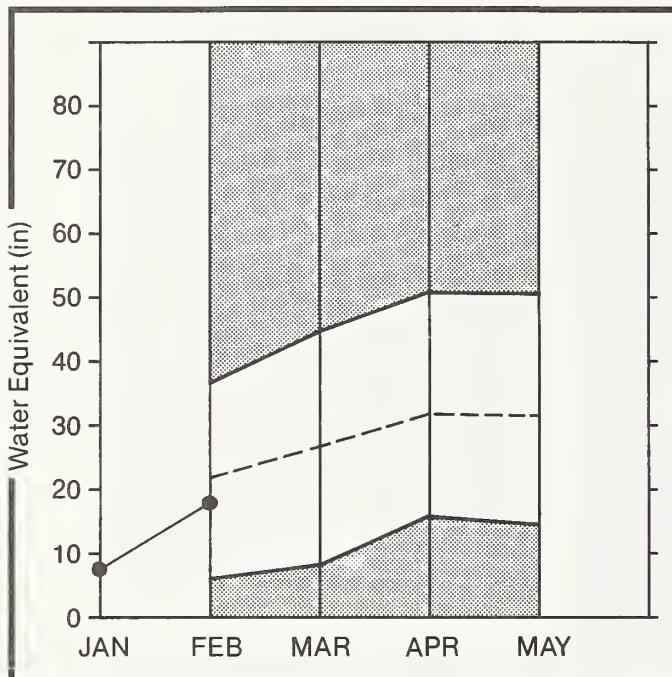
1 - Reas. max. and reas. min. forecasts are for 5% and 95% exceedance levels and also (2) below.

2 - Corrected for upstream diversions or changes in reservoir storage.

The average is computed for the 1961-85 base period.

OKANOGAN AND METHOW

Mountain snowpack* (inches)



*Based on selected stations

Maximum



Average



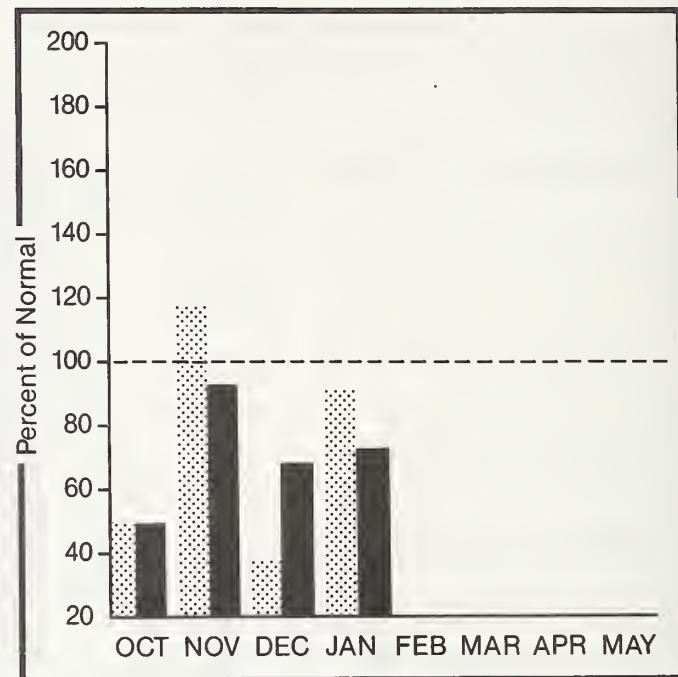
Minimum



Current



Precipitation* (percent of normal)



*Based on selected stations



Year to date precipitation

OKANOGAN - METHOW RIVER BASINS

WATER SUPPLY OUTLOOK:

Spring and summer forecasts on the Okanogan River is for runoff of 78% of normal and 79% on the Methow River. Streamflow in the Okanogan River was at 81% of average for January. Snow cover as of February 1 is 79% on the Okanogan, based upon data from 22 snow course measurements. Snow cover is 67% on the Methow. January precipitation in the Okanogan was at 92% with water year to date 73% of average. Storage in the Conconully Reservoirs is at 13,700 acre feet which is 59% of capacity and 99% of average. Temperatures for January were 5 degrees above normal.

For more information contact your local Soil Conservation Service office.

OKANOGAN - METHOW RIVER BASINS

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	25 YR. AVG. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	REAS. MAX. (1000AF)	REAS. MAX. (% AVG.)	REAS. MIN. (1000AF)	REAS. MIN. (% AVG.)
SIMILKAMEEN R. nr Nighthawk	APR-SEP	1462.0	1120.0	77	1700.0	116	535.0	37
	APR-JUL	1365.0	1050.0	77	1600.0	117	505.0	37
	APR-JUN	1161.0	895.0	77	1360.0	117	430.0	37
OKANOGAN R. nr Tonasket	APR-SEP	1644.0	1290.0	78	2100.0	128	485.0	30
	APR-JUL	1497.0	1170.0	78	1900.0	127	435.0	29
	APR-JUN	1262.0	985.0	78	1600.0	127	365.0	29
METHOW RIVER nr Pateros	APR-SEP	980.0	780.0	80	1200.0	122	360.0	37
	APR-JUL	908.0	720.0	79	1110.0	122	330.0	36
	APR-JUN	773.0	610.0	79	940.0	122	280.0	36

RESERVOIR STORAGE (1000AF)				WATERSHED SNOWPACK ANALYSIS				
RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF	
	THIS YEAR	LAST YEAR	AVG.	Avg'D			LAST YR.	AVERAGE
CONCONULLY LAKE (SALMON)	10.5	8.0	8.0	7.5	Okanogan River	25	92	77
CONCONULLY RESERVOIR	13.0	5.7	6.0	6.3	Methow River	4	91	60

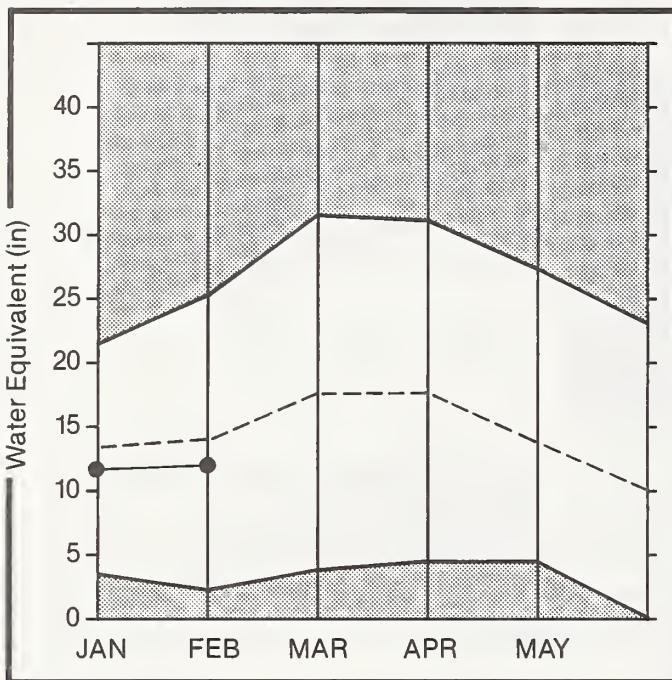
1 - Reas. max. and reas. min. forecasts are for 5% and 95% exceedance levels and also (2) below.

2 - Corrected for upstream diversions or changes in reservoir storage.

The average is computed for the 1961-85 base period.

WENATCHEE AND CHELAN

Mountain snowpack* (inches)



*Based on selected stations

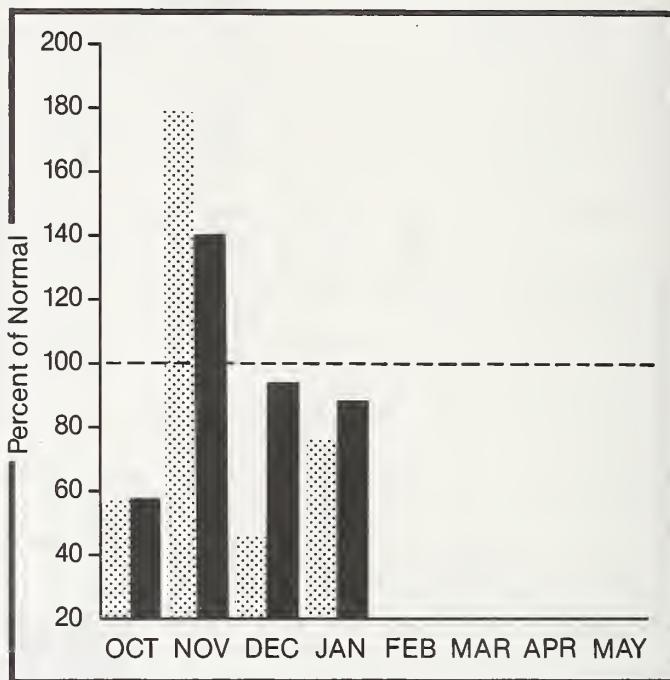
Maximum [Shaded Box]

Average [Dashed Line]

Minimum [Solid Box]

Current [Solid Line with Dots]

Precipitation* (percent of normal)



*Based on selected stations



Monthly precipitation



Year to date precipitation

WENATCHEE - CHELAN RIVER BASINS

WATER SUPPLY OUTLOOK:

January streamflows were 65% of average for the Chelan River and 50% on the Wenatchee River. Snowpack in the Wenatchee Basin is at 87% of normal, while the Chelan is at 75% and the Entiat at 84%. Spring and summer runoff for the Wenatchee is forecast to be 87% of normal, down from the 90% from last month, and 82% in the Chelan Basin, down from 83%. Stehekin River runoff is forecast to be 83% of average. Stemilt and Icicle are forecast at 81%. January precipitation was 78% of normal in the basin and 87% for the water year to date. Reservoir storage in Lake Chelan is at 260,500 acre feet or 58% of normal for February 1.

For more information contact your local Soil Conservation Service office.

WENATCHEE - CHELAN RIVER BASINS

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST	25 YR.	MOST	MOST	REAS.	REAS.	REAS.	
	PERIOD	AVG. (1000AF)	FROBABLE (1000AF)	% PROBABLE (% AVG.)	MAX. (1000AF)	MAX. (% AVG.)	MIN. (1000AF)	
CHELAN RIVER at Chelan 1	APR-SEP	1203.0	985.0	82	1290.0	107	685.0	57
	APR-JUL	1055.0	865.0	82	1130.0	107	600.0	57
	APR-JUN	826.0	680.0	82	890.0	108	475.0	58
STEHEKIN R. at Stehekin	APR-SEP	860.0	710.0	83	880.0	102	540.0	63
	APR-JUL	727.0	600.0	83	745.0	102	455.0	63
	APR-JUN	553.0	460.0	83	570.0	103	350.0	63
ENTIAT RIVER nr Ardenvoir	APR-SEP	234.6	188.0	80	245.0	104	130.0	55
	APR-JUL	213.0	171.0	80	225.0	106	118.0	55
	APR-JUN	172.0	138.0	80	181.0	105	95.0	55
WENATCHEE RIVER at Plain	APR-SEP	1270.0	1110.0	87	1540.0	121	680.0	54
	APR-JUL	1113.0	970.0	87	1350.0	121	590.0	53
	APR-JUN	899.0	785.0	87	1090.0	121	480.0	53
STEMILT nr Wenatchee (miners in)	MAY-SEP	138.0	119.0	82	160.0	116	66.0	48
ICICLE CREEK nr Leavenworth	APR-SEP	370.0	300.0	81	425.0	115	174.0	47
	APR-JUL	340.0	275.0	81	390.0	115	159.0	47
	APR-JUN	270.0	220.0	81	310.0	115	128.0	47
COLUMBIA R. b1 Rock Island Dam 2	APR-SEP	72781.0	60300.0	83	74100.0	102	46500.0	64
	APR-JUL	61601.0	51100.0	83	62800.0	102	39400.0	64
	APR-JUN	48384.0	40200.0	83	49400.0	102	31000.0	64

RESERVOIR STORAGE (1000AE)

WATERSHED SNOWPACK ANALYSTS

RESERVOIR	USEABLE CAPACITY			** USEABLE STORAGE **			WATERSHED	NO. COURSES AVG'D	THIS YEAR AS % OF	
	THIS YEAR	LAST YEAR	AVG.						LAST YR.	AVERAGE
CHELAN LAKE	676.1	260.5	267.5	450.6			Chelan Lake Basin	6	82	75
							Entiat River	2	97	103
							Wenatchee River	7	125	99
							Colockum Creek	1	67	67
							Squilchuck Creek	0	0	0
							Steilacoom Creek	2	63	71

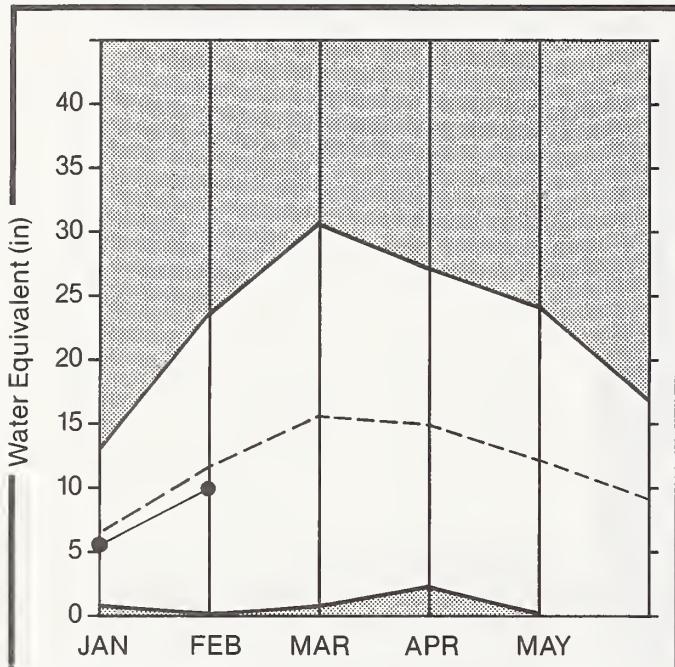
1 - Reas. max. and reas. min. forecasts are for 5% and 95% exceedance levels and also (2) below.

2 - Corrected for upstream diversions or changes in reservoir storage.

The average is computed for the 1961-85 base period.

YAKIMA

Mountain snowpack* (inches)



*Based on selected stations

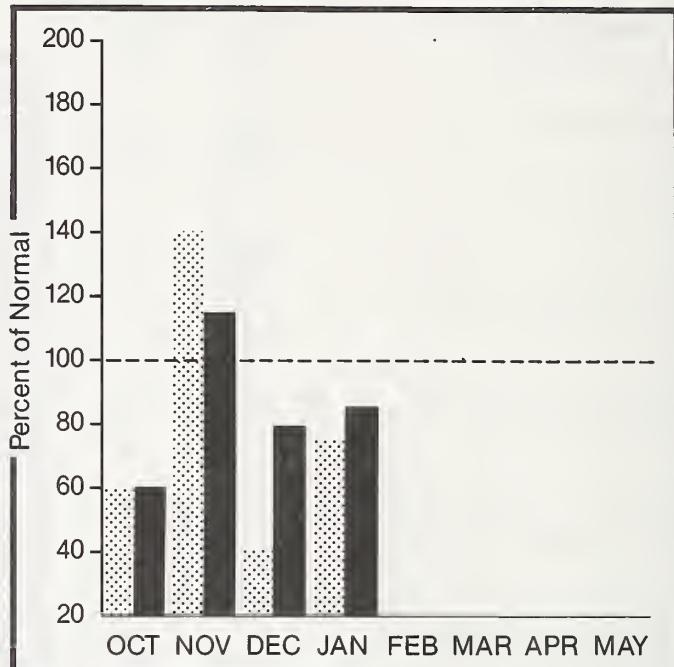
Maximum

Average

Minimum

Current

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation

Year to date precipitation

YAKIMA RIVER BASIN

WATER SUPPLY OUTLOOK:

Improved forecasts for the Yakima Basin call for runoff 86% of normal. These vary throughout the basin as follows; for the Yakima River at Cle Elum 86%, Naches River 83%, the Yakima River at Parker 84% and Ahtanum Creek 81%. Reservoir storage remains below average with February 1 values for the five major reservoirs at 354,500 acre feet or 62% of normal. Streamflow for January was not available due to icing of the stream gage. Snowpack is 90% of average in the Yakima Basin based upon measurements at 19 snow courses. Precipitation for January was 76% of normal and 85% for the water year to date. Temperatures were average for January.

For more information contact your local Soil Conservation Service office.

YAKIMA RIVER BASIN

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	25 YR. AVG.	MOST PROBABLE (1000AF)	MOST PROBABLE (%) AVG.	REAS. MAX. (1000AF)	REAS. MAX. (%) AVG.	REAS. MIN. (1000AF)	REAS. MIN. (%) AVG.
YAKIMA RIVER at Martin 1	APR-SEP	139.0	122.0	88	141.0	101	103.0	74
	APR-JUL	128.0	113.0	88	131.0	102	95.0	74
	APR-JUN	111.0	98.0	88	114.0	103	82.0	74
YAKIMA RIVER at Cle Elum 2	APR-SEP	943.0	810.0	86	942.0	100	678.0	72
	APR-JUL	854.0	735.0	86	855.0	100	615.0	72
	APR-JUN	734.0	630.0	86	733.0	100	527.0	72
YAKIMA RIVER nr Parker 2	APR-SEP	2096.0	1760.0	84	2300.0	110	1220.0	58
	APR-JUL	1898.0	1590.0	84	2080.0	110	1100.0	58
	APR-JUN	1667.0	1400.0	84	1830.0	110	970.0	58
KACHESS RIVER nr Easton 1	APR-SEP	121.0	103.0	85	124.0	102	82.0	68
	APR-JUL	115.0	98.0	85	118.0	103	78.0	68
	APR-JUN	101.0	86.0	85	103.0	102	69.0	68
CLE ELUM RIVER nr Roslyn 1	APR-SEP	463.0	395.0	85	464.0	100	326.0	70
	APR-JUL	422.0	360.0	85	423.0	100	297.0	70
	APR-JUN	353.0	300.0	85	353.0	100	247.0	70
BUMPING RIVER nr Nile 1	APR-SEP	142.0	118.0	83	155.0	109	81.0	57
	APR-JUL	129.0	107.0	83	141.0	109	73.0	57
	APR-JUN	107.0	89.0	83	117.0	109	61.0	57
AMERICAN RIVER nr Nile	APR-SEP	124.0	103.0	83	134.0	108	72.0	58
	APR-JUL	113.0	94.0	83	122.0	108	66.0	58
	APR-JUN	94.0	78.0	83	102.0	109	55.0	59
TIETON RIVER at Tieton 1	APR-SEP	246.0	205.0	83	269.0	109	141.0	57
	APR-JUL	207.0	173.0	84	227.0	110	119.0	57
	APR-JUN	165.0	137.0	83	180.0	109	94.0	57
NACHES RIVER nr Naches 2	APR-SEP	867.0	720.0	83	963.0	111	477.0	55
	APR-JUL	784.0	650.0	83	870.0	111	430.0	55
	APR-JUN	667.0	555.0	83	742.0	111	368.0	55
AHTANUM CREEK nr Tampico 2	APR-SEP	47.0	38.0	81	57.0	121	19.0	40
	APR-JUL	43.0	34.0	79	51.0	119	17.0	40
	APR-JUN	37.0	30.0	81	45.0	122	15.0	41

RESERVOIR STORAGE (1000AF) | WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF	
		THIS YEAR	LAST YEAR	AVG.				
KEECHELUS	157.8	65.9	62.4	96.0	Yakima River	14	115	92
KACHESS	239.0	62.2	107.0	170.0	Ahtanum Creek	1	79	67
CLE ELEM	436.9	106.6	129.4	251.0				
BUMPING LAKE	33.7	11.5	8.2	9.0				
RIMROCK	198.0	107.0	129.5	115.0				

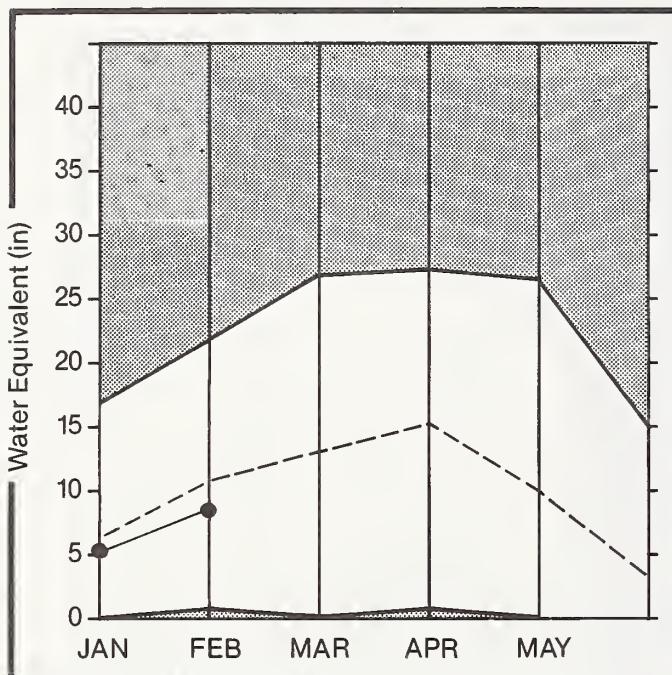
1 - Reas. max, and reas. min, forecasts are for 5% and 95% exceedance levels and also (2) below.

2 - Corrected for upstream diversions or changes in reservoir storage.

The average is computed for the 1961-85 base period.

WALLA WALLA

Mountain snowpack* (inches)



*Based on selected stations

Maximum



Average



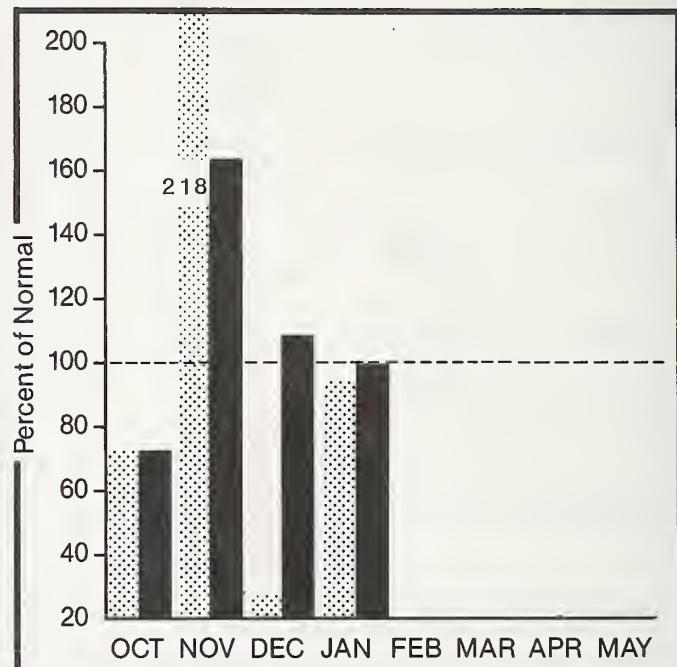
Minimum



Current



Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation



Year to date precipitation

WALLA WALLA RIVER BASIN

WATER SUPPLY OUTLOOK:

Forecasted streamflow in the Walla Walla Basin is 91% of average for the coming spring and summer. Snowpack in the Walla Walla River Basin is 76% of normal, based upon one snow course. Precipitation for January was 95% of average and the water year to date precipitation has been 99% of normal. Streamflow for December in the Walla Walla River was 39% of normal. Temperatures for January were average.

For more information contact your local Soil Conservation Service office.

WALLA WALLA RIVER BASIN

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST	25 YR.	MOST	MOST	REAS.	REAS.	REAS.	REAS.
	PERIOD	Avg.	Probable	Probable	Max.	Max.	Min.	Min.
		(1000AF)	(1000AF)	(% Avg.)	(1000AF)	(% Avg.)	(1000AF)	(% Avg.)
MILL CREEK at Walla Walla	APR-SEP	17.5	16.0	91	22.0	126	10.0	57
	APR-JUL	17.3	15.8	91	22.0	127	10.0	58
	APR-JUN	17.2	15.6	91	22.0	128	10.0	58
COLUMBIA R. at The Dalles 2	APR-SEP	101000.0	77900.0	77	100000.0	99	55700.0	55
	APR-JUL	86500.0	66800.0	77	85800.0	99	47800.0	55
	APR-JUN	70100.0	54000.0	77	69400.0	99	38600.0	55

RESERVOIR STORAGE (1000AF) | WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY			WATERSHED	NO. COURSES AVG'D	THIS YEAR AS % OF			
	** USEABLE STORAGE **					---			
	THIS YEAR	LAST YEAR	AVG.			---	---	---	
			Mill Creek.	1	145	76			

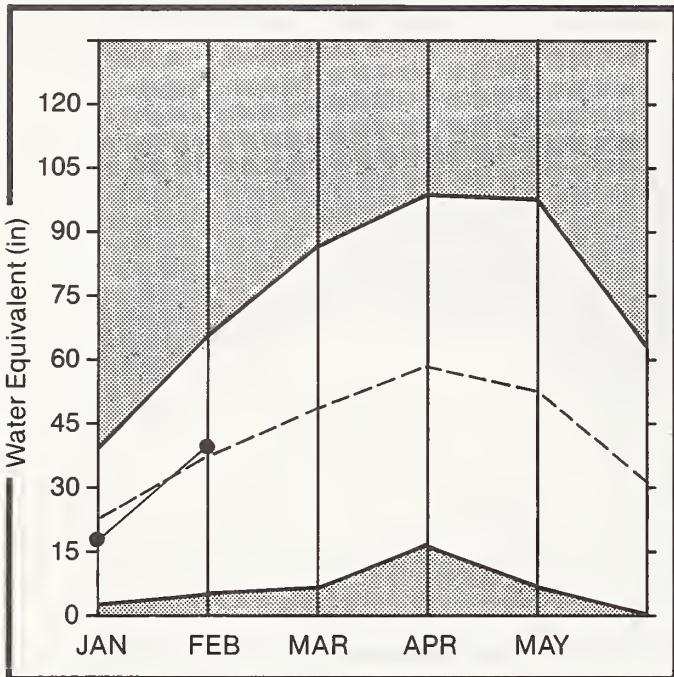
1 - Reas. max. and reas. min. forecasts are for 5% and 95% exceedance levels and also (2) below.

2 - Corrected for upstream diversions or changes in reservoir storage.

The average is computed for the 1961-85 base period.

COWLITZ AND LEWIS

Mountain snowpack* (inches)



*Based on selected stations

Maximum



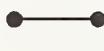
Average



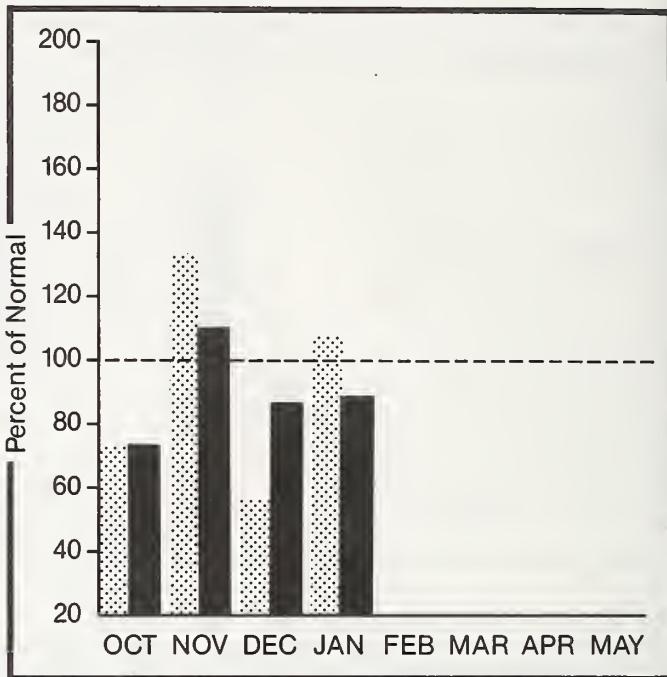
Minimum



Current



Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation



Year-to-date precipitation



COWLITZ - LEWIS RIVER BASINS

WATER SUPPLY OUTLOOK:

Streamflow is forecasted to be near normal for the coming water year. Forecasts for the Lewis River is 100% and for the Cowlitz River 97%. Snow cover for the Cowlitz-Lewis Basin is at 106% of normal, based upon measurements at 3 snow courses. Maximum water content was noted at the Plains of Abraham SNOTEL site where the snowpack contained 51.0 inches of water on February 1 (data may be affected by drifting). January precipitation was 105% of normal bringing the water year to date precipitation to 91% of average. January streamflow in the Cowlitz River was 59% of normal.

For more information contact your local Soil Conservation Service office.

COWLITZ - LEWIS RIVER BASINS

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	25 YR. AVG. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	REAS. MAX. (1000AF)	REAS. MAX. (% AVG.)	REAS. MIN. (1000AF)	REAS. MIN. (% AVG.)
LEWIS RIVER at Ariel 2	APR-SEP	1249.0	1250.0	100	1710.0	137	790.0	63
	APR-JUL	1086.0	1090.0	100	1490.0	137	690.0	64
	APR-JUN	961.0	960.0	100	1320.0	137	605.0	63
COWLITZ R. bl Mayfield Dam 2	APR-SEP	2038.0	2040.0	100	2880.0	141	1200.0	59
	APR-JUL	1778.0	1780.0	100	2510.0	141	1050.0	59
	APR-JUN	1502.0	1500.0	100	2120.0	141	885.0	59
COWLITZ R. at Castle Rock 2	APR-SEP	2673.0	2600.0	97	3480.0	130	1720.0	64
	APR-JUL	2323.0	2250.0	97	3020.0	130	1480.0	64
	APR-JUN	1980.0	1920.0	97	2570.0	130	1270.0	64

RESERVOIR STORAGE (1000AF) | WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY	*** USEABLE STORAGE ***			WATERSHED	NO. COURSES	THIS YEAR AS % OF LAST YR.	AVERAGE
		THIS YEAR	LAST YEAR	AVG.				
					Cowlitz River	1	105	87
					Lewis River	4	127	109

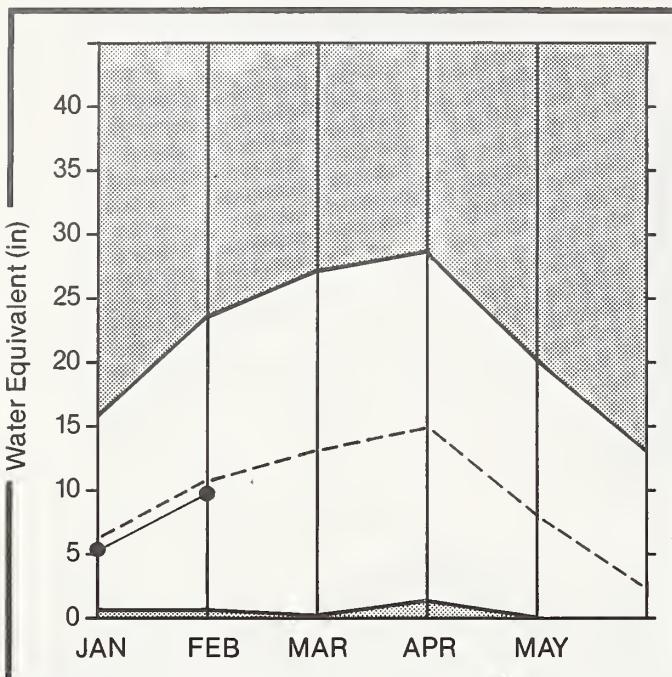
1 - Reas. max. and reas. min. forecasts are for 5% and 95% exceedance levels and also (2) below.

2 - Corrected for upstream diversions or changes in reservoir storage.

The average is computed for the 1961-85 base period.

WHITE – GREEN

Mountain snowpack* (inches)



*Based on selected stations

Maximum



Average



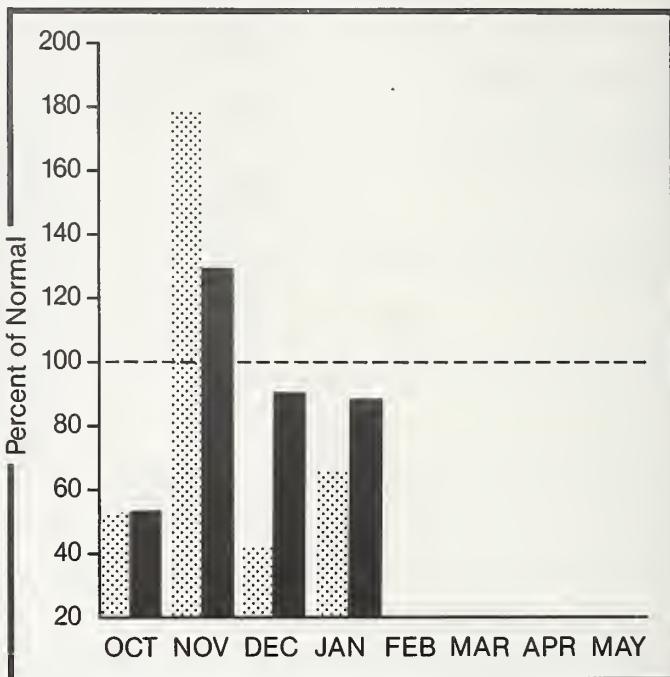
Minimum



Current



Precipitation* (percent of normal)



*Based on selected stations

WHITE - GREEN RIVER BASINS

WATER SUPPLY OUTLOOK:

January runoff was near 60% of average. Summer runoff is forecasted to be 85% of normal on the Green River and Cedar River. Water content at the Cayuse Pass snow course was 48.4 inches of water content on February 5. Precipitation was 65% of normal for January bringing the water year to date to 88% of average. Snowpack is 85% of normal for the basin.

For more information contact your local Soil Conservation Service office.

WHITE - GREEN RIVER BASINS

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST	25 YR.	MOST	MOST	REAS.	REAS.	REAS.	REAS.
	PERIOD	AVG. (1000AF)	PROBABLE (1000AF)	% AVG.	MAX. (1000AF)	MAX. (% AVG.)	MIN. (1000AF)	MIN. (% AVG.)
GREEN RIVER b1 Howard Hanson Dam 2	APR-SEP	316.0	270.0	85	365.0	116	175.0	55
	APR-JUL	284.0	245.0	86	330.0	116	160.0	56
	APR-JUN	256.0	220.0	86	295.0	115	145.0	57
CEDAR RIVER nr Cedar Falls	APR-SEP	93.0	80.0	86	108.0	116	52.0	56

RESERVOIR STORAGE

(1000AF)

WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY			** USEABLE STORAGE **	WATERSHED	NO. COURSES AVG'D	THIS YEAR AS % OF	
	THIS YEAR	LAST YEAR	AVG.					LAST YR.
				White River	2	159	129	
				Green River	6	138	85	

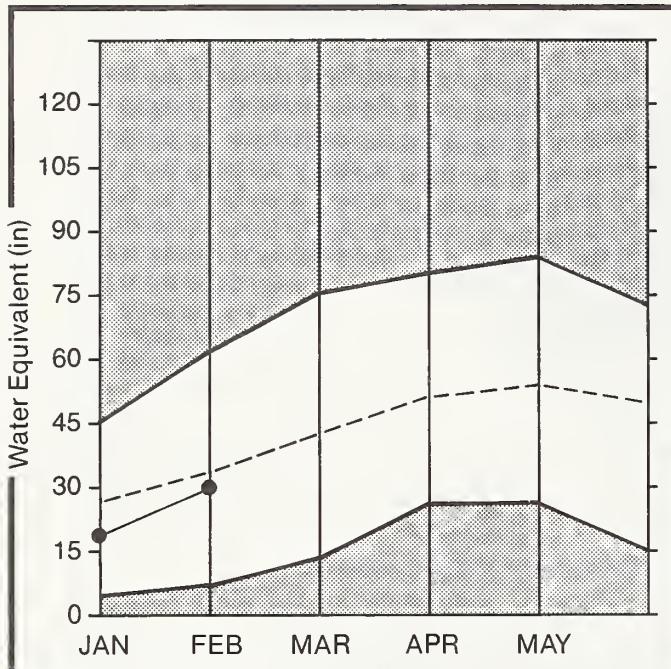
1 - Reas. max. and reas. min. forecasts are for 5% and 95% exceedance levels and also (2) below.

2 - Corrected for upstream diversions or changes in reservoir storage.

The average is computed for the 1961-85 base period.

NORTH PUGET SOUND

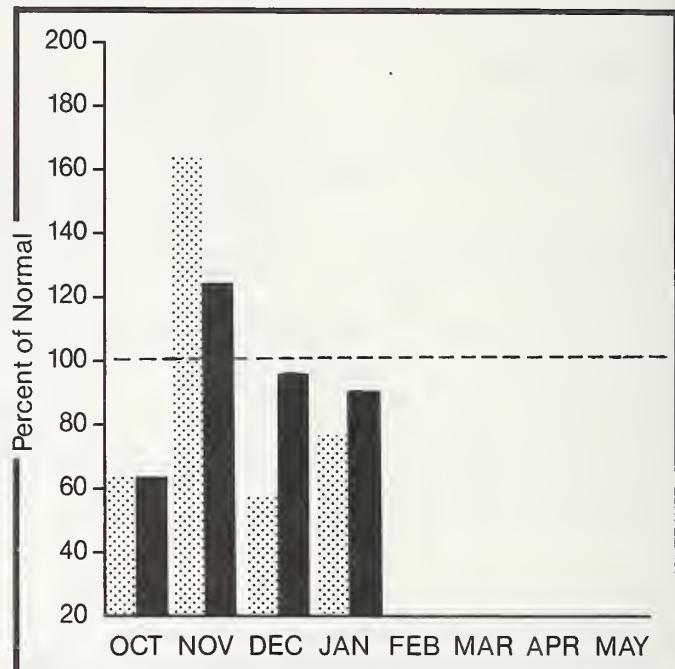
Mountain snowpack* (inches)



*Based on selected stations

Maximum [Solid Grey Box] Average [Dashed Line Box]
 Minimum [Solid Grey Box] Current [Dot Line Box]

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation [Hatched Box] Year to date precipitation [Solid Black Box]

NORTH PUGET SOUND RIVER BASINS

WATER SUPPLY OUTLOOK:

Precipitation values for December were 77% of average with a water year to date at 90%. Snowcover for the North Puget Basin is 86% of normal with the Lyman Lake SNOTEL site having 40.4 inches of water content as of February 1. Forecasted runoff for the Skagit River is 90% of normal. Reservoir storage is below average with Ross Lake storing 963,500 acre feet as of February 1; this is 93% of average and 68% of capacity. Temperatures were 1 degree above normal for January.

For more information contact your local Soil Conservation Service office.

NORTH PUGET SOUND RIVER BASINS

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	25 YR.	MOST PROBABLE	MOST PROBABLE	REAS. MAX.	REAS. MAX.	REAS. MIN.	REAS. MIN.
		Avg. (1000AF)	(1000AF) (%) AVG.	(1000AF)	(% AVG.)	(1000AF)	(% AVG.)	(1000AF)
SKAGIT RIVER at Newhalem 2	APR-SEP	2356.0	2120.0	90	2640.0	112	1600.0	68
	APR-JUL	1972.0	1770.0	90	2200.0	112	1340.0	68
	APR-JUN	1485.0	1340.0	90	1670.0	112	1010.0	68

RESERVOIR STORAGE (1000AF) | WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF	
		THIS YEAR	LAST YEAR	AVG.			AVG'D	LAST YR.
ROSS	1404.1	963.5	955.9	1033.9	Skagit River	13	105	86
DIABLO RESERVOIR	90.6	84.9	85.0	84.2	Baker River	9	131	99
GORGEOUS RESERVOIR	9.8	7.8	7.9	7.9	Cedar River	0	0	0
					Snoqualmie River	1	145	76
					Skykomish River	2	148	122

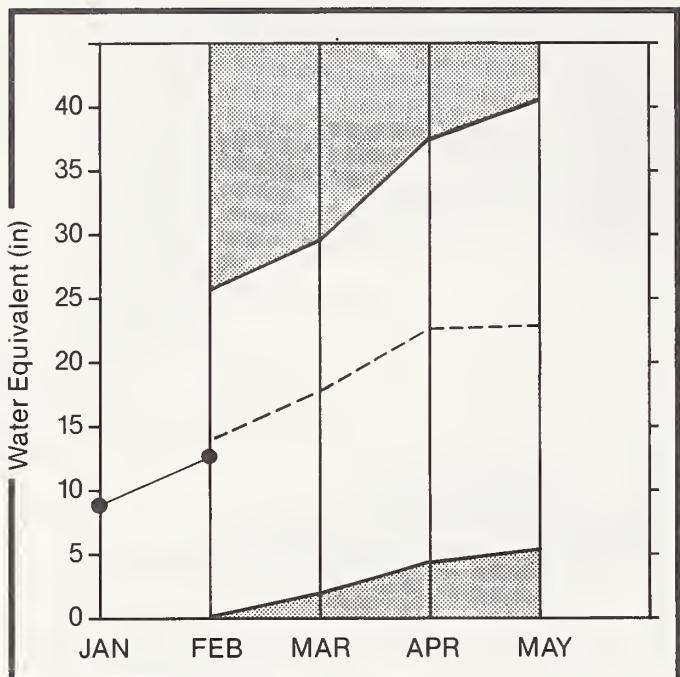
1 - Reas. max. and reas. min. forecasts are for 5% and 95% exceedance levels and also (2) below.

2 - Corrected for upstream diversions or changes in reservoir storage.

The average is computed for the 1961-85 base period.

OLYMPIC

Mountain snowpack* (inches)



*Based on selected stations

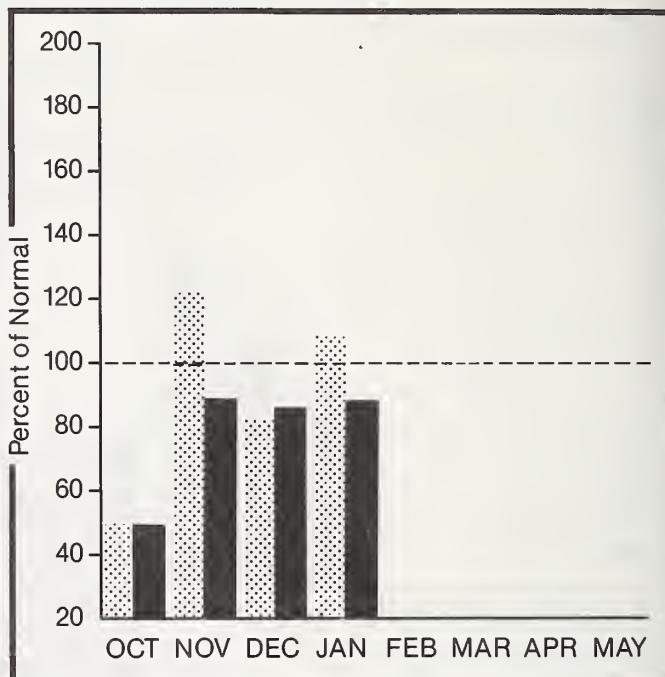
Maximum [Shaded Box]

Average [Dashed Line]

Minimum [Solid Box]

Current [Solid Line with Dot]

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation [Hatched Box]

Year to date precipitation [Solid Box]

OLYMPIC PENINSULA RIVER BASINS

WATER SUPPLY OUTLOOK:

Snow cover is 93% of normal based upon snow measurements at three sites in the Olympic Peninsula. January precipitation was 104% of average. The water year to date accumulation is 84% of average. Area streamflow was below normal during January. Forecasts of runoff for the Basins streams is 90% of average. Snow water measured at the Cox Valley snow course was 26.6 inches.

For more information contact your local Soil Conservation Service office.

OLYMPIC PENINSULA RIVER BASINS

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	25 YR.	MOST PROBABLE	MOST PROBABLE	REAS. MAX.	REAS. MAX.	REAS. MIN.	REAS. MIN.
		Avg. (1000AF)	(1000AF)	(% AVG.)	(1000AF)	(% AVG.)	(1000AF)	(% AVG.)
DUNGENESS RIVER nr Sequim	APR-SEP	160.0	144.0	90	176.0	110	112.0	70
	APR-JUL	130.0	118.0	91	144.0	111	92.0	71
	APR-JUN	97.0	88.0	91	107.0	110	69.0	71
ELWHA RIVER nr Port Angeles	APR-SEP	553.0	500.0	90	501.0	110	319.0	70
	APR-JUL	454.0	410.0	90				

RESERVOIR STORAGE

(1000AF)

WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES AVG'D	THIS YEAR AS % OF LAST YR. AVERAGE
		THIS YEAR	LAST YEAR	AVG.			
					Dungeness River	1	121 91
					Morse Creek	1	113 104
					Elwha River	1	152 94

1 - Reas. max. and reas. min. forecasts are for 5% and 95% exceedance levels and also (2) below.

2 - Corrected for upstream diversions or changes in reservoir storage.

The average is computed for the 1961-85 base period.

BASIN SUMMARY OF
SNOW COURSE DATA
FEBRUARY 1987

SNOW COURSE	EL ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-85	SNOW COURSE	EL ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-85
PENO OREILLE RIVER							SPOKANE RIVER						
EENTON MEADOW	2370	1/30/87	10	2.4	5.0	5.1	AEVUE BURKE	4100	1/30/87	36	9.0	10.4	14.2
EENTON SPRING	4920	1/30/87	33	8.6	10.8	13.2	FOURTH OF JULY SUM	3200	1/30/87	21	6.0	8.3	7.1
BUNCNGRASS MOWFILLW	5000	2/01/87	--	17.2	--	--	LOOKOUT	5140	1/30/87	54	16.6	17.2	23.6
NEART LAKE TRAIL	4800	1/31/87	46	11.8	11.2	15.2	LOST LAKE	6110	1/27/87	82	25.8	27.9	39.1
NOOOOO EASIN	6050	1/31/87	84	26.6	26.2	34.6	MOSQUITO RIOGE	5200	1/30/87	55	18.8	17.2	26.2
NOOOOO CREEK	5900	1/31/87	75	23.0	20.6	31.7	SHERWIN	3200	2/01/87	--	6.5E	7.6	9.8
LOOKOUT	5140	1/30/87	54	16.6	17.2	23.6	SUNSET	5540	1/29/87	45	13.2	12.4	22.8
NELSON CAN.	3100	1/27/87	37	9.0	8.4	11.3	NEWMAN LAKE						
SCHWEITZER BOWL	4800	1/29/87	53	15.3	12.7	21.4	RAGGEO RIOGE	3330	1/28/87	23	3.8	3.8	--
SCHWEITZER RIDGE	6200	1/29/87	69	24.1	23.3	32.2	OKANOGAN RIVER						
COLVILLE RIVER							ABERCOEN LAKE CAN.	4300	1/30/87	16	3.3	3.6	5.0
BAIRO	3220	1/26/87	20	4.2	--	5.8	BLACKWALL PEAK CAN.	6370	1/30/87	71	23.0	19.8	23.8
TOGO	3370	1/30/87	26	6.0	8.4	8.2	ERENO MINE CAN.	4800	1/29/87	31	8.2	9.2	9.1
KETTLE RIVER							EROMERE CAN.	3200	2/01/87	33	7.3	5.1	6.5
BARNES CREEK CAN.	5300	1/29/87	4	9.3	--	13.6	ENOEBEY CAN.	6200	1/28/87	79	28.6	26.5	24.8
BIG WHITE MTN CAN.	5510	2/03/87	41	11.1	11.9	12.8	ESPERON CK. MIQ CAN.	4690	2/01/87	38	8.9	8.6	10.8
EUTTE CREEK	4070	1/27/87	21	4.9	6.4	6.7	GREYBACK RES CAN.	5120	2/02/87	23	4.0	5.7	6.1
CARMI CAN.	4100	2/01/87	21	4.2	3.8	5.0	HAMILTON HILL CAN.	4890	1/25/87	28	6.6	8.1	10.8
FAKRON CAN.	4000	1/26/87	25	5.7	9.0	9.8	HARTS PASS FILLOW	6500	2/01/87	--	22.6S	26.9	39.1
GOAT CREEK	3600	1/27/87	19	4.2	5.4	5.4	ISINTOK LAKE CAN.	5500	1/31/87	16	2.6	4.8	5.6
MONASNEE PASS CAN.	4500	1/29/87	26	6.4	--	9.4	LOST HORSE MTN CAN.	6300	1/27/87	20	4.3	5.9	6.5
SUMMIT G.S.	4600	1/27/87	20	4.5	5.1	5.7	MCCULLOCH CAN.	4200	1/30/87	18	3.1	4.1	5.0
TRAFFING CH LOW CAN.	3050	1/31/87	17	3.1	--	4.2	MISSEZULA MTN CAN.	5090	1/26/87	21	4.4	6.7	6.9
TRAFFING CH UP CAN.	4460	2/01/87	26	5.2	5.7	7.1	MISSION CREEK CAN.	5800	1/30/87	33	9.2	14.4	13.3
OMAK LAKE, TWIN LAKES							MONASNEE PASS CAN.	4500	1/29/87	26	6.4	--	9.4
MOUNT TOLMAN	2000	1/28/87	17	3.8	--	--	MT. KOBIA CAN.	5900	1/31/87	26*	5.8	6.1	8.7
TWIN LAKES	2700	1/27/87	23	5.1	--	--	MUTTON CREEK #1	5700	1/29/87	32	6.2	6.4	9.7
WHITE RIVER							OTAYA LAKE CAN.	4400	1/31/87	18	3.6	5.0	5.0
CAYUSE PASS	5300	2/05/87	141	48.4	--	--	POSTILL LAKE CAN.	4500	1/30/87	20	3.5	4.5	5.8
CORRAL PASS	6000	1/28/87	76	22.0	19.9	--	RUSTY CREEK	4000	1/29/87	21	3.9	3.5	5.3
CORRAL PASS	6000	2/01/87	--	39.4S	21.1	24.9	SALMON MOWS FILLOW	4500	2/01/87	--	6.2S	6.1	10.3
MORSE LAKE	5400	2/01/87	--	37.5S	27.2	34.8	SILVER STAR Mtn CAN.	6000	1/31/87	57	17.1	18.6	19.2
GREEN RIVER							SUMMERLAND RES CAN.	4200	1/31/87	22	5.6	7.5	7.0
COUGAR MTN. FILLOW	3200	2/01/87	--	16.3S	10.7	18.6	SUNDAY SUMMIT CAN.	4300	1/28/87	21	4.0	3.8	4.8
GRASS MOUNTAIN #2	2900	2/03/87	24	6.3	.0	11.6	TROUT CREEK CAN.	4670	1/25/87	18	3.9	4.6	5.6
LESTER CREEK	3100	2/03/87	47	12.1	12.6	15.2	VASEUX CREEK CAN.	4600	1/28/87	13	2.3	3.1	4.4
LYNN LAKE	4000	2/03/87	39	12.5	12.3	18.1	WHITE ROCKS MTN CAN.	6000	1/30/87	43	13.7	12.6	15.7
SAWMILL RIOGE	4700	2/03/87	78	26.3	--	24.3	METHOW RIVER						
STAMPEOEE PASS FILLOW	3860	2/01/87	--	34.1S	23.1	37.0	NARTS PASS FILLOW	6500	2/01/87	--	22.6S	26.9	39.1
TWIN CAMP	4100	2/03/87	56	17.9	13.1	16.8	MUTTON CREEK #1	5700	1/29/87	32	6.2	6.4	9.7
CEDAR RIVER							RUSTY CREEK	4000	1/29/87	21	3.9	3.5	5.3
SNOWQUALMIE RIVER							SALMON MOWS FILLOW	4500	2/01/87	--	6.2S	6.1	10.3
OLALLIE MEAOOWS	3630	1/29/87	68	22.9	15.8	30.2	SHELCH LAKE BASIN						
SKYKOMISH RIVER							CLOUDY PASS AM	6500	2/02/87	77	19.2	29.2	27.9
STEVENS PASS FILLOW	4070	2/01/87	--	29.8S	26.2	29.7	LYMAN LAKE FILLOW	5900	2/01/87	--	40.4S	34.6	45.0
STEVENS PASS SAN SO	3700	2/04/87	86	36.3	18.4	24.3	LITTLE MOWS AM	5280	2/02/87	103	3.4	30.4	29.7
SKAGIT RIVER							MIRROR LAKE FILLOW	5600	2/01/87	--	23.3S	23.5	22.6
EEAVER CREEK TRAIL	2200	1/30/87	38	11.0	9.3	10.1	PARK CK RIOGE FILLOW	4600	2/01/87	--	35.8S	33.7	32.3
EEAVER PASS	3680	1/29/87	72	21.4	16.8	20.3	RAINY PASS FILLOW	4780	2/01/87	--	21.8S	25.0	34.3
BROWN TOP AM	6000	1/29/87	124	39.6	41.4	41.7	ENTIAT RIVER						
DEVILS FARM	5900	1/29/87	86	27.0	29.6	31.0	ERIEF	1600	1/28/87	24	5.0	7.0	6.1
FREEZEOUT CK. TRAIL	3500	1/29/87	38	9.5	7.0	9.3	POPE RIOGE	3540	2/08/87	57	15.3	13.9	13.6
GRANITE CREEK	3500	1/30/87	50	12.4	12.0	13.5	HENATCHEE RIVER						
HARTS PASS FILLOW	6500	2/01/87	--	22.6S	26.9	39.1	BERNE-MILL CREEK	3170	2/04/87	73	21.5	16.3	20.0
KLESILKWA CAN.	3710	2/02/87	44	10.6	4.1	9.3	BLEWETT PASS#2FILLOW	4270	2/01/87	--	12.3S	13.6	18.1
LYMAN LAKE FILLOW	5900	2/01/87	--	40.4S	34.6	45.0	CHIWAUKU G.S.	2500	2/04/87	37	8.6	6.9	8.9
MEAOWS CABIN	1900	1/30/87	10	3.1	3.1	5.7	LYMAN LAKE FILLOW	5900	2/01/87	--	40.4S	34.6	45.0
NEW NOZOMEEN LAKE	2800	1/29/87	34	7.6	7.1	8.3	MERRITT	2140	1/30/87	42	9.1	10.2	13.0
RAINY PASS FILLOW	4780	2/01/87	--	21.8S	25.0	34.3	MISSION RIOGE	5000	2/02/87	42	10.3	12.6	--
THUNDER BASIN	2400	1/30/87	57	14.2	13.4	13.4	STEVENS PASS FILLOW	4070	2/01/87	--	29.8S	26.2	29.7
BAKER RIVER							STEVENS PASS SAN SO	3700	2/04/87	86	36.3	18.4	24.3
DOCH BUTTE AM	3800	2/06/87	118	47.2	31.8	41.6	COLDCRUM CREEK						
EASY PASS AM	5200	2/06/87	136	54.4	38.7	46.5	TROUGH #2 FILLOW	5310	2/01/87	--	5.8S	8.7	8.7
JASPER PASS	AM 5400	2/06/87	152	60.8	49.6	60.6	SQUILNUCK CREEK						
MARTEN LAKE	AM 3600	2/06/87	114	45.6	40.0	49.2	STEMILT CREEK						
MT. ELUM AM	5800	2/06/87	102	40.8	33.2	42.8	STEMILT SLOE	5000	1/31/87	38	8.3	11.3	10.5
ROCKY CREEK AM	2100	/S/87	38	15.2	13.7	20.5	UPPER WHEELER	4400	1/31/87	29	5.1	10.1	8.4
SCHREIFIERS MOW AM	3400	2/06/87	96	38.4	25.2	35.6	YAKIMA RIVER						
SF THUNDER CK AM	2200	2/06/87	0	.0	7.0	--	AHANTUM R.S.	3100	1/27/87	30	4.6	8.9	--
WATSON LAKES AM	4500	2/06/87	94	37.6	27.2	39.5	ELEMETT PASS#2FILLOW	4270	2/01/87	--	12.3S	13.6	18.1
OUNGENESS RIVER							EUMPING LAKE	3450	2/04/87	46	11.7	12.6	11.8
DEER PARK	5200	1/31/87	48	12.7	10.5	13.9	EUMPING LAKE (NEW)	3400	2/04/87	--	52	13.8	14.4
MORSE CREEK							CAYUSE PASS	5300	2/05/87	141	48.4	--	--
COX VALLEY	4500	1/29/87	89	26.6	23.5	25.5	COLLOCUM PASS	4120	1/28/87	33	8.1	15.0	11.8
ELWHA RIVER							CORRAL PASS	6000	2/01/87	--	39.4S	21.1	24.9
HURRICANE	4500	1/30/87	50	13.4	8.8	14.2	FISH LAKE FILLOW	3370	2/01/87	--	21.9S	18.6	25.6
							GREEN LAKE FILLOW	6000	2/01/87	--	9.6S	12.2	14.3
							GROUP CAMP FILLOW	5380	2/01/87	--	12.0S	15.1	13.6
							LAKE CLE ELUM	2200	1/26/87	30	6.2	6.8	7.3
							MORSE LAKE FILLOW	5400	2/01/87	--	37.5S	27.2	34.8
							OLALLIE MEAOOWS	3630	1/29/87	68	22.9	15.8	30.2
							STAMPEOEE PASS FILLOW	3860	2/01/87	--	34.1S	23.1	37.0
							SASSE RIOGE FILLOW	4200	2/01/87	--	23.5S	15.8	24.8
							TUNNEL AVENUE	2450	1/26/87	50	11.1	12.4	15.7
							WHITE PASS ES FILLOW	4300	2/01/87	--	14.9S	14.2	17.2
							AHANTUM CREEK						
							ANTANUM R.S.	3100	1/27/87	30	4.6	8.9	--
							GREEN LAKE FILLOW	6000	2/01/87	--	9.6S	12.2	14.3
							MILL CREEK						
							HIGH RIDGE FILLOW	4980	2/01/87	--	15.8S	10.9	20.8
							TOUCHET #2 FILLOW	5530	2/01/87	--	20.4	15.5	--
							LEWIS AND COWLITZ RIVERS						
							CAYUSE PASS	5300	2/05/87	141	48.4	--	--
							WHITE PASS ES FILLOW	4500	2/01/87	--	14.9S	14.2	17.2



The Following Organizations Cooperate With The Soil Conservation Service In Snow Survey Work

Canada:

Ministry of the Environment, Water
Investigations Branch, Victoria, British Columbia

States:

Washington State Department of Ecology
Washington State Department of Natural Resources

Federal:

Department of the Army
Corps of Engineers
U.S. Department of Agriculture
Forest Service
U.S. Department of Commerce
NOAA, National Weather Service
U.S. Department of the Interior
Bonneville Power Administration
Bureau of Reclamation
Geological Survey
National Park Service
Bureau of Indian Affairs

Local:

City of Tacoma
City of Seattle
Chelan County P.U.D.
Pacific Power and Light Company
Puget Sound Power and Light Company
Washington Water Power Company
Snohomish County P.U.D.
Colville Confederated Tribes

Private:

Okanogan Irrigation District
Wenatchee Heights Irrigation District
Newman Lake Homeowners Association

Other organizations and individuals furnish valuable information for
snow survey reports. Their cooperation is gratefully acknowledged.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
ROOM 360, U.S. COURT HOUSE
SPOKANE, WASHINGTON 99201

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

THIRD-CLASS BULK RATE
POSTAGE AND FEES PAID
USDA - SCS
SPOKANE, WA
PERMIT NO G-267

THIRD CLASS MAIL

U. S. DEPT. OF AGRICULTURE
NATIONAL AGRICULTURAL LIBRARY
CURRENT SERIAL RECORDS
BELTSVILLE MD 20705

Washington Water Supply Outlook

and

Federal — State — Private
Cooperative Snow Surveys



SOIL CONSERVATION SERVICE

* U.S. GOVERNMENT PRINTING OFFICE: 1987—791-072-60000